

REMARKS

Claims 21-27 and 29-35 are pending in the present application. Claims 1-20 and 28 were previously cancelled. Claims 21, 25, 27, 30, 31, and 33-34 have been amended herein. No new matter has been added.

Independent claims 21 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. in view of Chiu. However, both of these claims have been amended such that they now clearly patentably define over the Chen et al. and Chiu references whether considered singly or in combination.

More specifically with respect to claim 21, Chen et al. does not even disclose a hard mask or an insulating layer. Therefore, it is impossible for Chen et al to teach the steps of providing a hard mask over an insulating layer patterned to define a contact hole or to actually form a contact hole in an insulating layer. Chen et al. does, however, form a contact hole in a "layer of dielectric material." Further, although Chen et al. may fill the contact hole and cover the layer of dielectric material with an ARC layer, Chen et al. does not cover or overlie a patterned hard mask with the ARC material since there is no hard mask to overlie. In addition, Chen et al. does not remove portions of the (non-existing) hard mask to re-pattern the (non-existing) hard mask so that it now defines conductive line trenches.

The Examiner then cites the Chiu reference as teaching the step of re-patterning the hard mask used to form the contact hole to also form the conductive line trenches. There is of course no such suggestion, much less such a teaching, by Chiu. Chiu does re-etch the hard mask to form a step like pattern, but he does not teach said re-patterning to form conductive line trenches over

contact holes. Further, Chiu does not overcome the other shortcomings of Chen et al. as discussed above.

Finally, amended claim 21 now includes a unique combination of eight separate process steps. None of the references of record whether considered singly or in combination teaches the unique combination.

Independent claim 30 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. in view of Chiu. Although the format of claim 30 is different than that of claim 21, all of the distinctions and arguments that define differences between claim 21 of the Chen et al. and Chiu references are equally applicable to distinguish claim 30 over Chen et al. and Chiu. For example the same hard mask used to pattern the contact hole in an insulating layer is re-patterned to define the conductive line trenches. This simply is not taught by either Chen et al. or Chiu. Likewise the unique combination of the elements of claim 30 is not even suggested and certainly not taught by any of the references of record.

The dependent claims in this application were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. in view of Chiu and in further view of one or more of Carey, Matsuoka et al., and Gruening-Von Schwerin et al. However, none of these references overcome the shortcomings of Chen et al. and Chiu with respect to independent claims 21 and 30 as discussed above. Therefore, the dependent claims are also allowable for depending from a claim deemed allowable as well as for their own limitations.

In view of the above, Applicants respectfully submit that the application is in condition for allowance and request that the Examiner pass the case to issuance. If the Examiner should

have any questions, Applicants request that the Examiner contact Applicants' attorney at the address below. No fee is believed due in connection with this filing. However, in the event that there are any fees due, please charge the same, or credit any overpayment, to Deposit Account No. 50-1065.

Respectfully submitted,

19 July 2007
Date

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